

ONE-2905
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8 JAN
1962

MEMORANDUM FOR : Deputy Director (Plans)
THROUGH : Acting Chief, DFD
SUBJECT : NASA Sonic Boom Report

1. The latest NASA sonic boom report is attached for information.
2. Unfortunately the data are helpful only generally in that they substantiate the trends already shown by theory, i.e., decay in boom intensity with altitude and with lateral distance.
3. The instrumentation induces considerable spread as you will note in Figure 10, page 26. From careful study it appears this instrumentation spread is of the same order as and tends to mask the spread in data points due to atmospheric effects.
4. Without further data not given in the report I cannot explain the difference between predicted values of boom intensity for fighter and bomber, Figures 19 and 20, pages 38 and 39, in view of the similarity of volumetric distribution shown in Figure 3, page 21. I have sketched the OXCART vehicle distribution in red on that page.
5. For some strange reason the bomber with pod, which should result in a poorer volumetric distribution, Figure 3, page 21, seemed to be closer in actual test to predicted values of intensity than without pod which was generally higher than predicted, Figure 20, page 39.
6. Another part of the overall sonic boom program is the correlation of psychological effects with measured data of this nature. This will not be complete for some months. Without this we cannot translate readily from the language of pounds per square foot overpressure to human reaction.
7. Tentatively from this report OXCART is liable to be heard more than I have hoped.

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Att: As stated

SA/TA/DFD:EPK:lmj (8 January 1962)

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